

## ALKALI-FREE ALUMINOBOROSILICATE GLASSES, AND USES THEREOF

ABSTRACT OF THE DISCLOSURE

An alkali-free aluminoborosilicate glass having a coefficient of thermal expansion  $\alpha_{20/300}$  of between  $2.8 \times 10^{-6}/K$  and  $3.8 \times 10^{-6}/K$ , which has the following composition (in % by weight, based on oxide): silicon dioxide ( $SiO_2$ ) > 58 - 65, boric oxide ( $B_2O_3$ ) > 6 - 11.5, magnesium oxide ( $MgO$ ) 4 - 8, barium oxide ( $BaO$ ) 0 - < 0.5, zinc oxide ( $ZnO$ ) 0 - 2 and aluminum oxide ( $Al_2O_3$ ) > 14 - 25, calcium oxide ( $CaO$ ) 0 - 8, strontium oxide ( $SrO$ ) 2.6 - < 4, with barium oxide ( $BaO$ ) + strontium oxide ( $SrO$ ) > 3, or aluminum oxide ( $Al_2O_3$ ) > 14 - 25, calcium oxide ( $CaO$ ) 0 - < 2, strontium oxide ( $SrO$ ) > 0.5 - < 4, or aluminum oxide ( $Al_2O_3$ ) > 21 - 25, calcium oxide ( $CaO$ ) 0 - 8, strontium oxide ( $SrO$ ) > 2.6 - < 8, with barium oxide ( $BaO$ ) + strontium oxide ( $SrO$ ) > 3, and which is highly suitable for use as a substrate glass both in display technology and in thin-film photovoltaics.